

## REMARKS

### I. STATUS OF THE CLAIMS

In the Office Action mailed December 28, 2005, the Examiner objected to claim 1 under 35 USC § 112, second paragraph. Therefore, Claim 1 is amended herein to overcome the rejection and to further clarify the invention. Support for the amended claim 1 can be found, for example, on page 13, line 15 thru page 19, line 21.

The Examiner stated claims 2 – 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Claim 1 is amended herein to overcome the rejection. Therefore, it is respectfully submitted that claims 2 – 4 are now in condition for allowance.

Claims 10 – 16 are added herein. Independent claims 10 and 14 recites in part, forming a *silicon (Si) film on the SiO<sub>2</sub> film to thereby make a conducting connection between the Si film and the SiO<sub>2</sub> film; then applying a photoresist to the Si film formed on the SiO<sub>2</sub> film; then patterning the photoresist so that a portion of the photoresist corresponding to the optical waveguide is left attached on the Si film; and forming a groove on the substrate along the optical waveguide by reactive ion etching.* Therefore, it is respectfully submitted that claim 10 in condition for allowance. Claim 14 further recites, *the substrate comprises a LiNbO<sub>3</sub> substrate, and the forming the optical waveguide comprises thermally diffusing titanium (Ti) in the LiNbO<sub>3</sub> substrate.* Therefore, it is respectfully submitted that claim 14 is in condition for allowance. Claims 11 – 13 depend from claim 10 and claims 15 – 16 depend from claim 14, therefore, it is respectfully submitted that claims 10-16 are allowable.

The applicant elected to examine claims 1 – 4 on December 14, 2005. Therefore, claims 5 – 9 are cancelled herein without prejudice or disclaimer.

Claims 1-4 and 10-16 are now pending and under consideration. No new matter has been added. Approval and entry is respectfully requested.

**II. CONCLUSION**

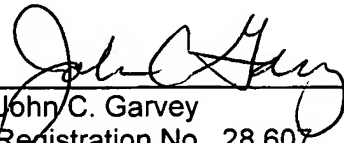
There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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